

# **Greening Project Status Report: The Presidio**



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# **The Greening of the Presidio**

## **Status Report and Accomplishments**

### **1. Introduction**

Visitors to the Presidio in San Francisco enjoy its beauty, history, and cultural variety. Within its 1,487 acres are more than 500 historic buildings, a collection of coastal defense fortifications, a national cemetery, a historic airfield, a saltwater marsh, forests, beaches, native plant habitats, coastal bluffs, miles of hiking and biking trails, and some of the most spectacular vistas in the world.

For thousands of years, the Ohlone Native Americans managed and harvested the natural bounty of what is now the area just south of the Golden Gate Bridge. In 1776, Spanish soldiers and missionaries arrived, beginning more than 200 years of primarily military uses of the area.



**The Presidio at San Francisco, California**

The Presidio served as a military post under the flags of Spain (1776-1822), Mexico (1822-1848), and the United States (1848-1994). As a U.S. Army post, the Presidio protected commerce and trade, and played a logistical role in every major U.S. military conflict over the last 150 years.

In 1972, the Golden Gate National Recreation Area was created, and the Presidio was designated to be part of the recreation area if the military ever closed the base. As part of a military base reduction program in 1989, Congress decided to close the post; the Presidio was transferred to the National Park Service (NPS) in October 1994. At the time of its closure, the Presidio was the oldest continuously operating military base in the country, containing a National Historic Landmark District with more than 500 buildings of historic value. Following transfer of the post, the NPS involved the community in a planning process that resulted in a General Management Plan for the Presidio. This plan calls for preserving and protecting the park's resources, as well as bringing together organizations that focus on finding solutions to environmental, cultural and social issues of global significance.

Two years after the NPS took control of the Presidio, the U.S. Congress established the Presidio Trust to transform the post into a financially self-sufficient park by the year 2013, while at the same time preserving its natural, scenic, and historic resources. On July 1, 1998, management of the noncoastal areas of the Presidio was transferred to the Trust, which leases the property in a manner that supports the objectives of the General Management Plan.

The General Management Plan incorporates three key directives for the Presidio site, which include the following:

- Create a center for research and learning that addresses the most critical environmental, social, and cultural issues in the world
- Establish a landmark urban park
- Develop a working model of sustainability

## **2. Context of the Project**

The depletion of natural resources can impose stresses on international stability that directly affect national security. Recognizing this, the Presidio's first goal, addressing the most critical environmental, social, and cultural issues, builds on the idea that the Presidio has the opportunity to play a key role in our nation's global defense strategy. In order to be successful, the three key elements of the General Management Plan revolve around one comprehensive issue: sustainability. In 1995, the NPS held a "Greening of the Presidio Charrette" to further explore the concept of a working model of sustainability. Many of the accomplishments derived from the charrette were overseen by the NPS. (A charrette is a highly focused, interactive brainstorming session for project participants.)

The Presidio Trust focuses on leasing, property management (including natural, scenic, recreational, and cultural resources), financing, and operations for the majority of the site. In conjunction with the NPS, the Trust is responsible for the preservation of natural systems and coastal management. Its ultimate responsibility is to ensure the Presidio's sustainability.



**Officers' family housing on Funston Avenue of the Main Post was constructed in the early 1860s.**

## **3. The Design and Decision Process**

The Presidio has made significant progress toward becoming an environmentally sustainable park since the Greening of the Presidio Charrette in 1995. The charrette brought together 100 professionals in various fields to explore a vision of sustainability for the Presidio. The goals were to create projects that exemplify sustainable practices and to find ways to incorporate educational materials on sustainability into all aspects of the park, for residents, tenants, and visitors.

The following section briefly summarizes the Presidio Trust's sustainable practices in transportation, waste minimization, residential buildings, nonresidential buildings, natural

habitats, and community redevelopment. A utilities section has been added to demonstrate how the Presidio Trust has become more sustainable in the day-to-day running of the park.

## **4. Highlights of Environmental Strategies and Accomplishments**

### **Transportation**

- Continual analysis of traffic flows, commuter traffic, transit riders, and parking allow the Trust to respond to changing travel demands.
- Bicycle routes have been designated in coordination with the City of San Francisco program. More bicycle racks are available throughout the park. The Trust is working with the NPS to finalize a Bikeways and Trails Master Plan for the Presidio that will identify an expanded comprehensive bikeways and pedestrian system for the park.
- The Presidio Trust is expanding the use of compressed natural gas (CNG) vehicles in the Trust fleet. A quick-fill, CNG fueling station is in operation.
- Fifteen electric Ford Rangers and associated charging stations have been incorporated into the Trust fleet.
- The San Francisco Municipal Railway System (MUNI) has increased its peak-period, commuter-bus service to the Presidio from downtown regional transit services (BART, Caltrain, ferries, and transbay bus services).
- The Trust is developing an internal shuttle-bus system for the Presidio as envisioned in the General Management Plan. The shuttle will initially use CNG fuel buses and incorporate more advanced propulsion systems (hybrid electric, fuel cells) in the future.
- The Trust is implementing parking management in the Presidio to regulate and charge for parking. Parking charges may be a disincentive to using automobiles in the park.



**Electric truck**



**Presidio electric car**

- The Trust is implementing a comprehensive Transportation Demand Management (TDM) program for nonresidential park tenants. Program participation is required through tenant-lease provisions. The program goal is to reduce automobile travel by 30% and thereby increase walking, biking, and transit use among employees and visitors.
- The Trust is working to develop both an electric-vehicle, car-sharing program and a bike-sharing program in the Presidio to serve residents, nonresidential tenant employees, and visitors.



- The Trust is working to incorporate an intermodal transfer facility into the redesign of Doyle Drive. The facility will support Golden Gate Transit, MUNI buses, and the internal shuttle.

## **Waste Minimization**

- A comprehensive Waste Reduction Program has been created. This program includes recycling and salvage, wood recovery, composting, source reduction, and green purchasing.
- The Presidio Salvage Department recovers more than \$100,000 worth of reusable equipment, furnishings, and material each year. Presidio departments have saved thousands of dollars by using materials reclaimed by the Salvage Program.



**On-site recycling bins**

- In FY 2000, the Presidio Reuse and Recycling Center was established and opened. Operated in partnership with the San Francisco Conservation Corps (<http://www.sfccclc.org>), this program recovers more than 10 tons of materials each month. Recyclables are collected from Presidio facilities, special events, and public recreation sites.
- The Recycling Center has developed a partnership with the city of San Francisco to establish the Center as a field trip destination for San Francisco school groups. A pilot program brought classes to the Center for recycling education in 2000, and hundreds of students will be educated at the Center in the future.
- The Presidio Regeneration Program manages small- and large-scale composting in the park. More than 150 cubic yards of organic debris are composted on site each month; this capacity is expected to double in the future. Grass clippings, brush, manure, and weeds are composted biodynamically and the finished product is applied to the Presidio Golf Course and on landscapes and used at the Presidio Native Plant Nursery.
- The Regeneration Program works closely with local school groups, training students from kindergarten through high school in composting techniques and benefits. The Regeneration staff trained the Trust employees, tenant employees, and residents in the use and benefits of compost.
- Wood from downed trees is used as mulch on site and for co-generation off site. A program is being developed to reclaim waste wood for value-added projects like the creation of benches and picnic tables for use in the park.

## **Residential Buildings**

- The Presidio Trust has made significant strides in green purchasing and the use of sustainable materials in its residential buildings. The new standards specify the use of the following materials in these buildings:

- 100% recycled carpet for residences
- Low-VOC paints for interior painting
- Salvaged wood and construction materials
- Low-flow plumbing
- Energy-efficient lighting
- Energy-efficient appliances



**Residential renovation**

- Long-term planning for lodging in the Presidio will comply with Green Building Standards.
- An ECO House, which will demonstrate sustainable building practices to visitors, is being planned with a targeted opening of spring 2002.
- PG&E has installed gas meters on 99.5% of the Presidio service connections. The Trust has radio frequency (RF) electric meters on all residential units under the Trust electrical distribution system.

They are in the process of providing each unit with a separate RF water meter. The revisions to the metering systems will allow residents to monitor their energy, gas, and water consumption.

- A grant from the California Public Utilities Commission's Summer Initiative will allow the Trust to replace 7,000 existing incandescent lamps with compact fluorescent lamps. It will also allow the replacement of 600 existing 75-watt (W) incandescent reflector lamps with 23-W induction lamps for outdoor applications. The retrofits in both residential and nonresidential buildings in 2001 will result in energy savings up to 1,780,000 kilowatt-hours (kWh) per year.

### **Nonresidential Buildings**

- At the Presidio, the unique challenge is to rehabilitate buildings with both environmental sustainability and historic preservation standards in mind. The Presidio Trust has developed Green Building Guidelines for Historic Structures. These guidelines mandate the use of the following materials in nonresidential restorations:
  - Low-VOC, recycled-back carpeting
  - Natural flooring products like linoleum and bamboo
  - Engineered wood products, nontoxic fiberboard, and recycled-content wallboard
  - Certified sustainable wood products (FSC certified)
  - Energy- and water-efficient fixtures and appliances
- The Trust now conducts all its building rehabilitations according to "smart building" principles that include stringent energy-efficiency requirements. In FY 2000 these requirements saved 115,700 kWh of electricity and 38,000 therms of gas.

- In new construction, the target rating is Gold from the U.S. Green Building Council's LEED™ (Leadership in Energy & Environmental Design) Certification program (<http://www.usgbc.org/programs/leed-frames.htm>).



**Thoreau Center for Sustainability**

- Thoreau Center Partners have received acclaim for sustainably renovating a complex of former Presidio hospital buildings. Building-integrated photovoltaics, certified sustainable wood products, and nontoxic and recycled materials are a few of the building features. Using operable windows, maximizing daylight, and creating ergonomic workstations are components of the building's sustainable design. Using sustainable practices, the NPS (<http://www/nps.gov/goga>) and the Golden Gate National Recreation Area rehabilitated the historic Presidio Fire Station and Crissy Field Center. Several historic buildings have been

rehabilitated by the Presidio Trust for office use. These buildings are equipped with energy management systems, efficient lighting and boilers, green building materials, and water conservation measures.

- Energy-efficient lighting retrofits in Presidio Trust buildings are saving more than 165,000 kWh/year.
- The Presidio Trust and the Presidio Alliance have received a grant from the California Public Utilities Commission to retrofit nonresidential buildings with energy-efficient LED exit signs, HID lighting, compact-fluorescent lighting, premium-efficiency motors, and lighting controls. The grant will also help expand the capabilities of the energy management system. The retrofits in both residential and nonresidential buildings in 2001 will result in an energy savings of up to 1,780,000 kWh/yr.
- Energy management systems are being installed and activated in every nonresidential building in the Presidio. These systems allow tenants and the Trust to monitor and control energy use. They lend computer intelligence to building operations and allow trouble-shooting from remote locations.
- The Presidio Trust is in the scoping stages of planning a nonresidential demonstration building for green design.



**Photovoltaic system above the entryway at the Thoreau Center**



## Natural Habitats

*Mountain Lake* – Because of growing community concern over the decline of Mountain Lake, the Presidio Trust has partnered with NPS and the Golden Gate National Park Association to improve the overall health of the lake. Major funding was awarded from the San Francisco airport expansion mitigation funds. A plan was developed following extensive research and public input. The current plan will improve the lake's water quality and the natural habitat, and enhance visitors' experiences. The restoration plan includes the following:

- Dredging the lake bottom and aerating
- Phasing in tree removal and revegetation with native species
- Buffer planting along Park Presidio Boulevard
- Improving the east shore trail with overlooks
- Installing a south shore overlook
- Removing a culvert, constructing a bridge, and replanting along the lake's east arm
- Beginning Phase One construction in spring 2001 (planned)
- Beginning Phase Two in three to five years

*Other* – The Trust and the NPS completed a draft version of the Presidio Vegetation Management Plan that proposes steps to preserve and enhance the Presidio's natural areas over the next three to five decades. In addition, the Trust launched a variety of restoration pilot projects with the NPS. NPS and the Golden Gate National Park Association completed a major wetland restoration along Crissy Field.

## Community Redevelopment

- The Presidio Alliance (501(c) (3)), a Presidio-based, nonprofit organization (<http://www.presidioalliance.org>), was formed as a result of the Greening the Presidio Charrette. The Alliance, housed in Building 563, publishes a quarterly newsletter and the Presidio organization directory.
- The Trust continues to have a successful relationship with the Presidio Alliance in the Rebuild Presidio Program. This local partnership project was awarded a grant from PG&E to conduct energy conservation work with Presidio tenants.
- A tenant's council has been established and holds monthly meetings.
- Representatives from the Presidio neighborhoods meet monthly through the Mayor's Council.
- A community center that will house a library and community meeting spaces has been proposed.



**The community at work**

- The Trust has intensified public outreach to engage the community in shaping the future of the Presidio. Outreach efforts include an extensive Web site, a monthly newsletter, and regular community-planning workshops.
- The Trust established a Natural Resources Awareness and Stewardship Program in order to educate Trust staff, Presidio employees, and residents about ways to live in harmony with the Presidio's environment. During 2000, the Trust launched a campaign to protect the California quail, a threatened species. The Presidio is home to the largest known quail covey in the area.
- As of 2000, people who work in the park occupied 37% of Presidio on-site households. This reduces traffic and pollution and fosters a sense of stewardship among residents.
- In 1999, the Trust established a "Green Building Design and Materials Library" at the Presidio as an information resource to assist contractors and the public in designing structures that use resources efficiently.
- In conjunction with the NPS and with extensive community input, the Trust continues to develop a trails plan to increase accessibility for hikers and bikers, create better connections to regional routes, and protect natural resources.

## **Utilities**

- Extensive repairs in the Presidio's leaky water distribution system resulted in savings of 1.2 million gallons of water each week.
- A feasibility study for a proposed microcogeneration plant has been completed. This plant will provide the Presidio with an on-site, highly efficient energy source. This system will also utilize the heat that is often wasted in traditional generating plants.
- Studies are currently under way to develop a water reclamation plant. This will provide up to 85% of the Presidio's irrigation needs and reduce the amount of water drawn from Lobos Creek, the park's primary potable water source.
- Low-flow irrigation and plumbing are used in all building rehabilitations.
- Five oil/water separators will allow stormwater to be treated (solids settle out and floating material is captured) before the water is discharged into San Francisco Bay.
- Re-refined lubricant is used for heavy machinery.
- Re-refined antifreeze and solvent are recycled in the heavy machinery shop.

## **Awards and Recognition**

Presidio Trust programs and Trust staff have received numerous awards for efforts and achievements in the area of sustainability. These are some of the awards received in 2000:

- The Presidio Trust received a "WRAP" (Waste Reduction Award Program) award from the State of California Integrated Waste Management Board for recycling and reducing waste in business.
- The Trust's Sustainability Manager was recognized by the Environmental Protection Agency for "Taking the Next Step for Federal Facilities and the Environment."
- The Trust was awarded a "Recycle at Work" award from the U.S. Conference of Mayors in the category of "Environmental Responsibility."
- The Trust was recognized by the White House with a "Closing the Circle" award for the Affirmative Procurement program.
- The supervisor of the Presidio Sign Shop received an Environmental Achievement Award from the U.S. Department of the Interior.

**Table: Status of Greening Recommendations**

<b>Transportation</b>	
<u>Actions</u>	<u>Comments</u>
Analyze traffic flows, commuter traffic and parking areas and develop a well-defined circulation plan.	Completed.
Make more bicycle racks, lockers, maps and signage of routes available.	Completed
Initiate a pilot electric tram program and conduct an energy analysis to determine the benefit of electric shuttles.	<ul style="list-style-type: none"> <li>Energy analysis has been performed and an initial funding grant has been awarded for the development of a “Greenlink” electric-hybrid shuttle between the Presidio and the Bay Area Rapid Transit (BART).</li> <li>The pilot program has been initiated. The tram program will become a regular interpretive tour feature on weekends.</li> </ul>
Install a quick-fill compressed natural gas fueling station and convert NPS vehicles to compressed natural gas.	<ul style="list-style-type: none"> <li>Fueling station has been installed.</li> <li>Many NPS fleet vehicles have been converted and more are scheduled for conversion.</li> </ul>
Incorporate an integrated sustainable transportation system.	<ul style="list-style-type: none"> <li>Near the Thoreau Center for Sustainability, the NPS and the U.S. DOE have installed a demonstration solar-powered charging station for electric vehicles.</li> <li>Fifteen electric Ford Rangers have been implemented.</li> </ul>
Formally establish a transportation management association as a 501(c)(3) which will work with the Presidio Trust and the NPS to improve transportation options and to realize an effective commuter link between BART and the Presidio.	No action.
Institute a parking permit system and initiate removal of paved parking areas in accordance with the General Management Plan, as efficient public transit links are provided.	In progress.
Expand public transportation options for the Presidio to include alternative fueled buses and improved tram, rail, and bike access along the Bay coastline. Determine access by water shuttle feasibility.	An agreement that guarantees improved express bus service to the Presidio was negotiated with the San Francisco Municipal Railway.
Establish electronic traveler information systems internally and externally linked to TRAVNET, BART, airports, hotels, and park partners. Improve other internal circulation signage within the Presidio.	The Presidio Web site now includes information on scheduling and routes for public transit as well as bicycles.
Create an interactive educational program on the impact of personal travel choices and the options available for access to the park.	Progress has been made in developing a Traffic Demand Management Program with the goal of reducing reliance on automobiles and encouraging the use of alternative transportation.
Support ongoing demonstrations of alternative transportation technologies through park partners and special events programs.	The Trust participated in electric automobile demonstration projects and developed relationships with electric car manufacturers.
Reduce traffic and emissions within the park by initiating an internal shuttle, a shared bicycle program, and a shared electric car program.	The Trust has determined an internal shuttle system route and has sought funding.
In conjunction with the NPS, the Trust will complete a plan to improve the Presidio’s network of hiking trails and bicycle routes.	A year-long process has been launched to study the Presidio’s network of recreational trails. A Recreational Trailways Master Plan is in the works.

Waste Minimization	
Actions	Comments
Establish the Presidio as a zero-waste park through a reuse, recycle, and compost infrastructure.	A full-time employee has been hired to develop and coordinate a waste reduction and materials conservation program.
Establish a recycling depot in a centralized location within the park.	Building 1243 has been rehabilitated as a recycling depot: a consolidation point for materials.
Within the recycling depot, establish a reuse warehouse to store salvaged materials from the removal and renovation of buildings at the Presidio.	<ul style="list-style-type: none"> <li>The Presidio salvage team was formed to collect reusable materials, store them and then reassign them on renovation projects.</li> <li>A pilot deconstruction project reclaimed more than 100,000 board feet of usable lumber from two separate buildings.</li> <li>New specifications for deconstruction projects and materials salvaging have been drafted.</li> <li>Nearly eight tons of scrap metal has been recycled along with a variety of furnishings, supplies, and equipment being identified for reuse. Avoided costs for 1999 were close to \$120,000.</li> </ul>
The Presidio needs a comprehensive waste management plan to divert organic materials from landfills.	Five small worm-composting systems have been developed, with mid-sized systems established at community gardens.
Establish on-site recycling services and opportunities for residents, tenants, and visitors.	<ul style="list-style-type: none"> <li>Recycling services are available to on-site offices and residences.</li> <li>Recycling bins can be found throughout the site, and the recycling depot is a central recycling location.</li> <li>Heard throughout the Bay Area, "Trash Talk" is a radio program produced at the Presidio offering waste-reduction tips.</li> </ul>
Develop green management guidelines describing the zero-waste concept and sustainable business practices for the Presidio.	The National Park Service is drafting policies and guidelines for "green management."
Provide educational opportunities along with training programs in waste management.	<ul style="list-style-type: none"> <li>The waste reduction program offers internships.</li> <li>The Trust has implemented a "buy recycled" procurement program and trained nearly 80 employees on buying green.</li> </ul>
Create an electronic bulletin board for distribution of a "greening" newsletter to all park partners.	<i>The Presidio Post</i> is a monthly newsletter providing information on all of the Presidio's environmental activities.
Develop a demonstration compost site and centralized facility.	<ul style="list-style-type: none"> <li>The Regeneration Program utilizes composting to revitalize Presidio soils at various sites.</li> <li>Approximately 12 tons of organic material were collected and reused as a result of a pilot-composting program.</li> </ul>
Make recycling containers available in high-visitation areas.	Completed.
Coordinate with park partners to provide training in waste reduction, resource conservation, and building salvaging techniques.	The Trust has partnered with two nonprofit organizations, the San Francisco Conservation Corps and San Francisco Community Recyclers, to establish the Presidio Recycling and Education Center. Nearly 3,500 lb. of materials are recycled weekly.



Form an artisans and artist's cooperative that makes use of recycled and reused materials.	An artist-in-residence created totem carvings and figures from recycled logs and trees in conjunction with a Pacific Islanders Cultural Event.
Engage eco-friendly businesses and concessions as park partners to offer necessary goods and services at the park.	In progress.
Support the development of cottage industries that use recycled or reused materials to close the loop by creating new products from discards at the Presidio.	In progress.
Establish an educational program at area schools on reducing, recycling, and reusing.	Started a pilot program.
Focus on potential water conservation measures throughout the park.	<ul style="list-style-type: none"> <li>Repairs to the Presidio's leaky water distribution system resulted in saving 1.2 million gallons of water per week.</li> <li>Groundwater infiltration into the sanitary system was also reduced, saving \$300,000 a year in wastewater treatment fees.</li> <li>Xeriscaping and low-flow irrigation have been replacing lawns.</li> </ul>
Construct a water reclamation plant.	The planning and design along with initial construction will begin in the year 2000.
Address on-site hazardous material and waste.	A hazardous material/waste program has been initiated to re-refine motor oil, antifreeze, and solvents generated by the Presidio's maintenance shops.
<b>Residential/Nonresidential Buildings</b>	
<u><b>Actions</b></u>	<u><b>Comments</b></u>
Apply sustainable building standards for all residential rehabilitation. Require all new tenants to incorporate sustainable design and construction in rehabilitation work.	The Trust has adopted the U.S. Green Building Council's "LEED Green Building Rating System" and modified it to be Presidio-specific. The resulting document is the "Green Building Guidelines."
Compile a bibliography of existing materials used in sustainable rehabilitation.	In progress.
Begin programs for monitoring energy efficiency prior to rehabilitations and document decision-making.	With partners, the Trust completed energy audits on 14 Presidio buildings.
Begin post-rehabilitation energy-efficiency monitoring.	No action.
Renovate a demonstration house and develop interpretive displays.	Educational tours are offered to include historic home renovations.
Offer overnight accommodations in an eco-efficient, quality historic residence.	No action.
Identify an organization, foundation, or corporation to establish the Presidio Building Center and assume responsibility for coordinating training for professionals in the building industry.	The "Green Building Design and Materials Library" was established by the Trust as an information resource for contractors and the general public in designing resource-efficient structures.
Ensure that Presidio tenants understand and employ models of sustainable building and rehabilitation practices to reduce their energy bills by 30%.	<ul style="list-style-type: none"> <li>Energy-efficient guidelines have been established for tenants of the Presidio.</li> <li>670 electricity submeters have been installed in buildings, allowing tenants to monitor and reduce energy consumption. The Presidio is on track to reach a 30% reduction in energy consumption by 2001 (four years sooner than Executive Order 13123).</li> <li>Through the DOE's "Rebuild America" program, the "Rebuild Presidio" program has been established to offer expertise by federal facilitators to help</li> </ul>

	program participants set and achieve energy efficiency goals.
Focus on rehabilitating residential structures throughout the Presidio.	Funston Avenue homes rehabilitation is ongoing.
Focus on rehabilitating nonresidential structures throughout the Presidio; including offices, conference facilities and commercial space.	<ul style="list-style-type: none"> <li>• In June 1996 and December 1997, open houses were held for the Thoreau Center for Sustainability, the first demonstration of “green” rehabilitation and adaptive reuse. The Thoreau Center incorporates maximized daylighting, natural ventilation, energy-efficient lighting, sustainably harvested wood, recycled glass tiles, recycled aluminum, natural linoleum, nontoxic paint, and recycled carpet.</li> <li>• Energy-efficient lighting was installed in five Presidio Trust buildings, resulting in a 40% reduction in energy consumption and an estimated \$20,000 savings.</li> <li>• The Presidio Cavalry Stables have been renovated with recycled plastic lumber.</li> <li>• A boiler system was constructed at the Letterman Army Institute of Research and is saving 888,861 therms annually.</li> <li>• A cogeneration plant has been installed at the YMCA for maximum energy efficiency.</li> <li>• Low-flow plumbing is required in all renovations.</li> <li>• The historic 1917 Fire Station was renovated, incorporating linoleum flooring, recycled content carpeting, low-VOC paints, formaldehyde-free millwork, compact fluorescent lighting, daylighting, and low-E glazing.</li> </ul>
Analyze, plan, and begin construction of a fuel cell cogeneration plant.	An initial feasibility study for a fuel cell cogeneration plant to produce hot water and steam for heating needs has been completed.
Offer educational opportunities to residents, tenants, neighbors, and visitors regarding sustainable structures at the Presidio.	<ul style="list-style-type: none"> <li>• Educational tours are offered.</li> <li>• The Adopt-A-Building program has been established, offering educational opportunities to students, groups, and business.</li> </ul>
<b>Natural Habitats</b>	
Begin testing and measuring Mountain Lake’s water and sediments.	Six months of lake water and sediment data/information have been tested and continue to be tested for toxins.
Plan and construct an access trail to Mountain Lake with trailside information educating the visitor on the ecology of the site.	Cooperative management of the lake, along with development of an access trail, was signed for in a <i>Memorandum of Understanding</i> with the City of San Francisco.
Develop formalized planning documents, involving the community, for Mountain Lake’s future.	<ul style="list-style-type: none"> <li>• A public forum was held in August 1996 to involve the community in Mountain Lake’s future.</li> <li>• An intern has produced educational flyers documenting the lake’s ecological health, in conjunction with a public presentation.</li> <li>• A school curriculum incorporating local schools in the restoration of the lake has been started.</li> </ul>

Develop pilot projects to restore and enhance native plant communities, forests, and landscaped areas.	<ul style="list-style-type: none"> <li>• The Trust established a Natural Resources Awareness and Stewardship program to educate staff, Presidio employees, and residents about ways to live in harmony with the Presidio's environment.</li> <li>• The Trust and NPS have completed a draft for the Presidio Vegetation Management Plan that proposes actions to preserve and enhance the natural areas.</li> <li>• Open space is planned to increase by 25%.</li> <li>• Restoration of native plant communities is ongoing.</li> </ul>
<b>Community Redevelopment</b>	
Establish a nonprofit organization to partner with the community.	<ul style="list-style-type: none"> <li>• The Presidio Alliance has gained 501(c)(3) status and is partnered with the Trust in the "Rebuild Presidio" program.</li> <li>• The Alliance publishes a quarterly newsletter updating the community on new developments.</li> <li>• The Alliance has been granted a home in Building 563, which has also undergone rehabilitation for accessibility.</li> <li>• A Presidio directory of organizations is published and updated semiannually.</li> </ul>
Identify improvements to the park's visitor experience.	<ul style="list-style-type: none"> <li>• The Trust has developed Presidio-wide maps and area maps.</li> <li>• The Trust and the NPS have completed the design, interpretive graphics, and placement plan for informational kiosks to be located throughout the park.</li> </ul>
Increase the awareness of the Presidio's goals and the recreational, educational, and cultural activities established to achieve those goals.	The Presidio established a Web site containing news about the Presidio's history, improvement projects, sustainability initiatives, visitor services, and leasing activity.
Establish monthly planning workshops and public forums, inviting community participation to assist in the Presidio's future.	<ul style="list-style-type: none"> <li>• The Alliance holds quarterly membership meetings to update the community on new events.</li> <li>• Lecture series on sustainability have been held.</li> <li>• Round tables on sustainable building have been held.</li> <li>• At least four programs related to meetings are held each month.</li> <li>• A tenant's council has been established and holds meetings monthly to address the practical needs of the Presidio community.</li> <li>• In April 2000, a <i>Visitor Experience and Interpretation Symposium</i> was held, inviting specialists to address the issue of what the visitor experience should be.</li> </ul>
Increase financial support from foundations and corporations.	Negotiations with Lucasfilm's Letterman Digital Arts Ltd. to develop a 23-acre site have begun. Development of this site will generate 14% of revenues in 2013.
Expand social network and community activities to integrate tenants and residents.	Trust-sponsored events, such as Earth Day and Archaeology Open House, have been held and are ongoing.

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